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09/477,226	01/04/2000	GEORGE HSU	P413	8873

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EXAMINER

KUPSTAS, TOD A

ART UNIT PAPER NUMBER

2153

DATE MAILED: 06/05/2003

12

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/477,226

Applicant(s)

HSU, GEORGE

Examiner

Tod Kupstas

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- ☐ Interview Summary (PTO-413) Paper No(s). _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

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DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 4/9/2003 has been entered.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-11, and 13-25 rejected under 35 U.S.C. 103(a) as being unpatentable over Horbal et al. (US 6,112,246) in view of Sandelman et al. (US 6,160,477).

As set forth in claim 1, Horbal discloses a control unit for monitoring conditions at and controlling functions of an appliance in response to a step sequence received from a remote

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server, comprising: a microcontroller for managing functions of the control unit (see fig. 2, the microserver); an input-output (I/O) section coupled to the microcontroller for interfacing voltage levels between elements of the appliance and the microcontroller; see col. 8, lines 26-39, and element 406; a system memory for storing the step sequence received from the remote server; a wiring interface for connecting input and output points from the control unit to the system or appliances; see col. 3, lines 34-37; see col. 5, lines 50-59; with connections made between the wiring interface and the controlled appliance, the microcontroller generates outputs to operate functions operate the appliance according to the step sequence received; see col. 3, lines 31-35, lines 44-45. Horbal discloses a system wherein the microservers can be placed on appliances, and other devices and the sensors then send information for control over the Internet to the browsers for control and interaction; also Horbal can download information from various device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2-col. 17, line 14, as well as having a central administrator to control multiple devices; see col. 17, lines 10-25, also see figs. 1 and 2.

As set forth in claims 1 and 4, Horbal does not discloses a system wherein there is an RF section communicating with the microcontroller and memory for receiving programs and data. As set forth in claims 1 and 4, Sandelman discloses a system wherein sensors are placed on devices and can be monitored via RF devices through the Internet; see Col. 6, lines 47-57, col. 7, lines 9-31, and col. 7, lines 45-59, see fig. 610. It would have been obvious to a person of ordinary skill

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in the art at the time this invention was made to have provided the microserver system of Horbal, with an RF section, as taught by Sandelman. The rationale is as follows: It would have been desirable to have provided means for remotely sending information to a control center. As Sandelman teaches the desirability of using an RF section, one of ordinary skill would have been motivated by Sandelman's teaching to have provided the system of Horbal, with an RF section, thereby having provided alternative means for communicating the data for remote observation and control.

As set forth in claim 2, Horbal discloses a control unit wherein the microcontroller produces control outputs partly in response to input from sensors on the controlled system or appliance; see figs. 3, the temperature sensor.

As set forth in claim 3, Horbal discloses a control unit further comprising additional sensors in the control unit, wherein the microcontroller produces control outputs partly in response to input from the additional sensors; see col. 8, lines 32-39.

As set forth in claim 5, Horbal discloses a method for controlling an appliance, comprising steps of: (a) connecting a control unit to elements of the appliance by a wiring interface, the control unit comprising a microcontroller for managing functions of the control unit, an input-output (I/O) section coupled to the microcontroller for interfacing voltage levels between elements of the appliance and the microcontroller, a system memory for storing a step sequence received from a remote server, a wiring interface for connecting the elements of the appliance to the control unit, and (c) operating the appliance according to the step sequence received; see col.

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8, lines 26-39, and element 406, see col. 5, lines 50-59 see col. 3, lines 31-45. Horbal discloses a system wherein the microservers can be placed on appliances, and other devices and the sensors then send information for control over the Internet to the browsers for control and interaction, also Horbal can download information from various device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2-col. 17, line 14, as well as having a central administrator to control multiple devices; see col. 17, lines 10-25, also see figs. 1 and 2.

As set forth in claims 5 and 8, Horbal does not disclose a system wherein there is an RF section communicating with the microcontroller and memory for receiving programs and data. As set forth in claims 5 and 8, Sandelman discloses a system wherein sensors are placed on devices and can be monitored via RF devices through the Internet; see Col. 6, lines 47-57, col. 7, lines 9-31, and col. 7, lines 45-59, see fig. 610. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the microserver system of Horbal, with an RF section, as taught by Sandelman. The rationale is as follows: It would have been desirable to have provided means for remotely sending information to a control center. As Sandelman teaches the desirability of using an RF section, one of ordinary skill would have been motivated by Sandelman's teaching to have provided the system of Horbal, with an RF section, thereby having provided alternative means for communicating the data for remote observation and control.

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As set forth in claim 6, Horbal discloses a method wherein in step (c) the microcontroller produces control outputs partly in response to input from sensors on the controlled system or appliance; see col. 8, lines 32-39, and fig. 3.

As set forth in claim 7, Horbal discloses a method further comprising additional sensors in the control unit, and wherein, in step (c) the microcontroller produces control outputs partly in response to input from the additional sensors; see col. 8, lines 32-39, and fig. 3.

As set forth in claim 9, Horbal discloses a base station for managing one or more control units in a home or business control system, the control units connected to individual ones of appliances in the home or business, comprising: a microcontroller for managing functions of the base station; memory coupled to the microcontroller for storing one or more step sequences to be performed by one or more of the control units a communication port for communicating with the Internet; characterized in that the one or more step sequences via the communication port, and transmits individual ones of the step sequences to appropriate control units; see col. 8, lines 26-39, and element 406, see col. 5, lines 50-59 see col. 3, lines 31-45. Horbal discloses a system wherein the microservers can be placed on appliances, and other devices and the sensors then send information for control over the Internet to the browsers for control and interaction, also Horbal can download information from various device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2-col. 17, line 14, as well as having a central administrator to control multiple devices; see col. 17, lines 10-25, also see figs. 1 and 2.

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As set forth in claims 9, 11, and 13, Horbal does not disclose a system wherein there is an RF section communicating with the microcontroller and memory for receiving programs and data. As set forth in claims 9, 11, and 13, Sandelman discloses a system wherein sensors are placed on devices and can be monitored via RF devices through the Internet; see Col. 6, lines 47-57, col. 7, lines 9-31, and col. 7, lines 45-59, see fig. 610. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the microserver system of Horbal, with an RF section, as taught by Sandelman. The rationale is as follows: It would have been desirable to have provided means for remotely sending information to a control center. As Sandelman teaches the desirability of using an RF section, one of ordinary skill would have been motivated by Sandelman's teaching to have provided the system of Horbal, with an RF section, thereby having provided alternative means for communicating the data for remote observation and control.

As set forth in claim 10, Horbal discloses a base station wherein the communication port is one of a standard serial or parallel communication port compatible with a personal computer (PC) and wherein the PC handles communication with the Internet for receiving step sequences, and transfers the step sequences to the base station; see figs. 2-5.

As set forth in claim 14, Horbal discloses a method for managing functions for a plurality of appliances in a home or business, the appliances connected to control units: (a) identifying each control unit uniquely electronically; (c) downloading control individual step sequence from an Internet site by the base station identified for individual ones of the control units, and transmitting

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the downloaded step sequences selectively to the individual ones of the control units; see col. 8, lines 26-39, and element 406, see col. 5, lines 50-59 see col. 3, lines 31-45. Horbal discloses a system wherein the microservers can be placed on appliances, and other devices and the sensors then send information for control over the Internet to the browsers for control and interaction, also Horbal can download information from various device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2-col. 17, line 14, as well as having a central administrator to control multiple devices; see col. 17, lines 10-25, also see figs. 1 and 2.

As set forth in claims 14 and 15, Horbal does not discloses a system wherein there is an RF section communicating with the microcontroller and memory for receiving programs and data. As set forth in claims 14 and 15, Sandelman discloses a system wherein sensors are placed on devices and can be monitored via RF devices through the Internet; see Col. 6, lines 47-57, col. 7, lines 9-31, and col. 7, lines 45-59, see fig. 610. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the microserver system of Horbal, with an RF section, as taught by Sandelman. The rationale is as follows: It would have been desirable to have provided means for remotely sending information to a control center. As Sandelman teaches the desirability of using an RF section, one of ordinary skill would have been motivated by Sandelman's teaching to have provided the system of Horbal, with an RF section, thereby having provided alternative means for communicating the data for remote observation and control.

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As set forth in claim 16, Horbal discloses a method wherein the communication port is one of a standard serial or parallel communication port compatible with a personal computer (PC) and wherein a connected PC handles communication with the Internet for receiving the step sequences, and transfers the step sequences to the base station; see figs. 2-5.

As set forth in claim 17, Horbal discloses a control system for systems and appliances in a home or business area, comprising: a plurality of control units, individual ones of the units wired to sensors and actuators of individual ones of the appliances, the control units having each a microcontroller, a system memory, an I/O section; and an Internet site executing software enabling a subscriber associated with the home or business area to interact with the base station; characterized in that the Internet site software provides an interface for their subscriber to review status of systems and appliances having connected control units in the associated home or business, and to author step sequences addressed for individual ones of the control units in the home or business; see col. 8, lines 26-39, and element 406, see col. 5, lines 50-59 see col. 3, lines 31-45. Horbal discloses a system wherein the microservers can be placed on appliances, and other devices and the sensors then send information for control over the Internet to the browsers for control and interaction, also Horbal can download information from various device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2-col. 17, line 14, as well as having a central administrator to control multiple devices; see col. 17, lines 10-25, also see figs. 1 and 2.

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As set forth in claims 17, 22, and 23, Horbal does not disclose a system wherein there is an RF section communicating with the microcontroller and memory for receiving programs and data. As set forth in claim 17, 22, and 23, Sandelman discloses a system wherein sensors are placed on devices and can be monitored via RF devices through the Internet; see Col. 6, lines 47-57, col. 7, lines 9-31, and col. 7, lines 45-59, see fig. 610. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the microserver system of Horbal, with an RF section, as taught by Sandelman. The rationale is as follows: It would have been desirable to have provided means for remotely sending information to a control center. As Sandelman teaches the desirability of using an RF section, one of ordinary skill would have been motivated by Sandelman's teaching to have provided the system of Horbal, with an RF section, thereby having provided alternative means for communicating the data for remote observation and control.

As set forth in claim 18, Horbal discloses a control system wherein the base station comprises an Internet browser and an Internet-capable port for Internet access; see fig. 2.

As set forth in claim 19, Horbal discloses a control system wherein the base station has a standard serial or parallel port for connection to a personal computer, and the personal computer accomplishes necessary Internet browsing functions; see fig. 6-12.

As set forth in claim 20, Horbal discloses a control system wherein each control unit is configured to the base station by a specific address; see fig. 2, each appliance.

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As set forth in claim 21, Horbal discloses a control system wherein the subscriber has a specific web page on the Internet site, wherein all configured, installed and active control units in the home or business area with which the subscriber is associated are indicated; see figs. 6-12.

As set forth in claim 24, Horbal discloses a method for managing control functions for a plurality of appliances in a home or business, comprising steps of: (a) connecting a control unit to each appliance, each control unit enabled to receive input from sensors on the appliance and to actuate functions of the system or appliance to which it is connected; (b) identifying each control unit uniquely electronically; (d) downloading step sequences from an Internet site by the base station identified for individual ones of the control units, and transmitting the downloaded step sequences selectively to the individual ones of the control units; and (e) providing a web site where a subscriber associated with the home or business area may access a web page having an interface for displaying status of each active control unit in the home or business, and allowing the subscriber to enter functions and data for controlling the active control units in the home or business; see col. 8, lines 26-39, and element 406, see col. 5, lines 50-59 see col. 3, lines 31-45. Horbal discloses a system wherein the microservers can be placed on appliances, and other devices and the sensors then send information for control over the Internet to the browsers for control and interaction, also Horbal can download information from various device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2-col. 17, line

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14, as well as having a central administrator to control multiple devices; see col. 17, lines 10-25, also see figs. 1 and 2.

As set forth in claim 24, Horbal does not disclose a system wherein there is an RF section communicating with the microcontroller and memory for receiving programs and data. As set forth in claim 24, Sandelman discloses a system wherein sensors are placed on devices and can be monitored via RF devices through the Internet; see Col. 6, lines 47-57, col. 7, lines 9-31, and col. 7, lines 45-59, see fig. 610. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the microserver system of Horbal, with an RF section, as taught by Sandelman. The rationale is as follows: It would have been desirable to have provided means for remotely sending information to a control center. As Sandelman teaches the desirability of using an RF section, one of ordinary skill would have been motivated by Sandelman's teaching to have provided the system of Horbal, with an RF section, thereby having provided alternative means for communicating the data for remote observation and control.

As set forth in claim 25, Horbal discloses an Internet subscription service having a system comprising a plurality of web pages specific to individual subscribers, and accessible interactively by the subscribers through any Internet appliance; characterized in that the system communicates for each web page and subscriber; see col. 8, lines 26-39, and element 406, see col. 5, lines 50-59 see col. 3, lines 31-45. Horbal discloses a system wherein the microservers can be placed on appliances, and other devices and the sensors then send information for control over the Internet to the browsers for control and interaction, also Horbal can download information from various

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device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2-col. 17, line 14, as well as having a central administrator to control multiple devices; see col. 17, lines 10-25, also see figs. 1 and 2.

As set forth in claim 25, Horbal does not disclose a system wherein there is an RF section communicating with the microcontroller and memory for receiving programs and data. As set forth in claim 25, Sandelman discloses a system wherein sensors are placed on devices and can be monitored via RF devices through the Internet; see Col. 6, lines 47-57, col. 7, lines 9-31, and col. 7, lines 45-59, see fig. 610. It would have been obvious to a person of ordinary skill in the art at the time this invention was made to have provided the microserver system of Horbal, with an RF section, as taught by Sandelman. The rationale is as follows: It would have been desirable to have provided means for remotely sending information to a control center. As Sandelman teaches the desirability of using an RF section, one of ordinary skill would have been motivated by Sandelman's teaching to have provided the system of Horbal, with an RF section, thereby having provided alternative means for communicating the data for remote observation and control.

4. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Horbal et al. in view of Sandelman et al.

Horbal does not explicitly disclose having a base station enabled to identify and communicate with up to 256 control units selectively. It would have been obvious to a person of

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ordinary skill in the art at the time this invention was made to have provided the of system of Horbal, with the ability to communicate with up to 256 control units. The rationale is as follows: It would have been desirable have the ability to communicate with multiple units. One of ordinary skill would have been motivated by the need to control multiple objects to have provided multiple control units to the system of Horbal thereby having provided the ability to monitor multiple systems.

Response to Arguments

5. Applicant's arguments filed 11/2/2002 have been fully considered but they are not persuasive.

Applicant, on page 9 of the response, indicates that “[o]n page 3 of the Office Action, (2nd paragraph) the Examiner states that Horbal does not disclose a memory for receiving programs and data.” This is incorrect, the Examiner states “Horbal does not discloses a system wherein there is an RF section communicating with the microcontroller and memory for receiving programs and data.” This statement addresses the lack of an RF section for receiving the data, not the existence of memory for receiving the programs and data.

Applicant argues that the micro-servers of Horbal do not comprise a system memory for storing the step sequence received from the remote server. Applicant further states that the “key here is that the device function is stored locally, at the appliance via the embedded OEM software, and no-redefinition of what the device does can be made remotely.” Horbal can download

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information from various device servers for usage by the clients; see col. 17, lines 25-41, and access by the microservers to the respective information related to the device and found on the device's server; see col. 15, line 2-col. 17, line 14. Horbal therefore provides the system with the ability to access the device's manufacturer's site for updates, and additional information related to the device. This data enables the client to alter the control of the devices (e.g. what the device does, for example it could alter the times at which measurement is made, or to adjust the temperature of a thermostat, this is a "re-definition of what the device does" and it is made remotely and sent to the microservers at the devices; see fig. 2.

Applicant, on page 10, argues that the "microserver in Horbal is not receiving information directly from the remote server." First the Examiner notes that the claims do not require receiving information directly from the remote server, and only requires receiving data from the server (it is not stated in the claims that the information must be received "directly." However, the insertion of the word "directly" in the claims would not overcome Horbal, the way the claim reads, the server can logically be considered the client's computer as it serves the control data to the microserver, as well as additionally receiving new information from other sources. The client side computers in Horbal function as servers when they supply update data to the microservers in the system. The limitations of the claims are met by Horbal.

On page 10, Applicant further argues that Applicant's control unit generates outputs to operate the appliance and that Horbal fails to accomplish this. The Examiner notes that in Horbal information generated by the control units would operate the appliance, measurement of the

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temperature would affect the adjustment of the thermostat. The limitations of the claims are met by Horbal.

On page 11, Applicant argues aspects of the instant invention that are not required by the claims, in order to flesh out the differences between the Applicant's instant invention and the prior art. Although, the Examiner notes the arguments, the Examiner maintains that the claims are addressed by Horbal and Sandelman, and Applicant's arguments are not addressing the claims directly. Applicant further states that the claimed control unit includes "all of the functionality required to control and monitor an appliance. The appliance does not require special OEM embedded software in order to function." The Examiner notes that some software is required to control and monitor the appliances in Applicant's invention, and that whether or not Horbal uses special OEM embedded software does not overcome the rejection. The Examiner further maintains that Horbal encompasses the instant invention.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tod Kupstas whose telephone number is (703) 305-2655.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenton Burgess, can be reached at (703) 305-4792. The fax phone number for this art unit is (703) 308-7201. Any inquiry of a general nature or relating to the status of this

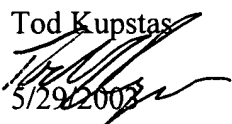
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application or proceeding should be directed to the technology center receptionist whose telephone number is (703) 305-3900.

Tod Kupstas


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